



The Dangers of Fentanyl

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VIRGINIA FOUNDATION FOR HEALTHY YOUTH





So Why Are We Talking About Fentanyl?

Because ...

Many teens know a lot about tobacco, alcohol, and other drugs but don't know much about fentanyl. Many adults don't know much about it either.

You deserve to know what fentanyl is, how it might impact you and your friends, and what to do if someone has an overdose.

Activity:

- Option 1: Ask students to pair up and share with each other what comes to mind when they think of fentanyl.
- Option 2: Ask students to raise their hand if they want to share what comes to mind when they think of fentanyl.






What is Fentanyl?

- ❖ Fentanyl is a synthetic opioid that is 50-100 times stronger than morphine.
- ❖ Pharmaceutical fentanyl was developed for pain management treatment of cancer patients, applied via a patch on the skin. Fentanyl is now commonly mixed with drugs like heroin, cocaine, methamphetamine, and marijuana and made into fake or counterfeit pills that are made to resemble prescription pills.
- ❖ Fentanyl can be fatal. People often die from a fentanyl overdose without even knowing that it is present in the substance they took.



- Synthetic means that it is made in a lab and has no natural properties. It is meant to imitate something that exists in nature.
- In this case, that is morphine which is derived from opium.
- Substances that are synthetic can be altered to be much stronger than those that have a natural foundation.

How Strong is Fentanyl?

OPIOID	POTENCY	LETHAL DOSE	
Morphine	1x	1 Pea	
Heroin	2x	1 Sunflower Seed	
Fentanyl	100x	1 Sesame Seed	
Sufentanil	500x	1 Grain of sand	
Carfentanil	10,000x	0.5 Grains of Salt	

- The image describes the potency of common opioids. Potency refers to the strength of a drug. In other words, how much of the drug is needed to produce an effect.
- Remind students that many hamburger buns have sesame seeds on top to ensure they understand the size of a dose that could kill people.
- Carfentanil, which is 100 times stronger than fentanyl, is used to anesthetize (paralyze) large animals like elephants and rhinos. It is synthesized from fentanyl. By altering a few molecules, synthetic drugs can gain incredible strength, making them even more deadly.



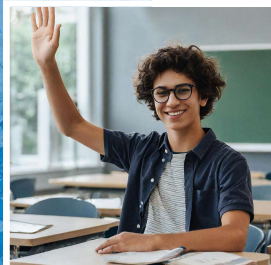
- **This** is the amount of a lethal (i.e., deadly) dose of fentanyl in powder form. Even smaller doses of fentanyl will produce a high, and a chance for building a tolerance to the drug - meaning more of the drug is needed to get the same effect.
- Fentanyl is commonly mixed with drugs like heroin, cocaine, methamphetamine, and marijuana and made into fake or counterfeit pills that are made to resemble prescription pills.
- With the amount being so small, it can be undetectable when mixed with other substances.
- Fentanyl is so strong that it is difficult to mix evenly. This means that one pill can have little or no fentanyl, but another pill from **the same batch** could have a fatal dose of fentanyl.

Activity



Option 1:

Explain to a partner in your own words what fentanyl is and at what amount it becomes harmful.



Option 2:

Raise your hand to explain in your own words what fentanyl is and at what amount it becomes harmful.

How Do Opioids Work in the Body?

Fentanyl, like other commonly used opioids (e.g., morphine), produces effects such as relaxation, euphoria, pain relief, sedation, confusion, drowsiness, dizziness, nausea, vomiting, constipation, urinary retention, pupillary constriction, and respiratory depression.



- You have different opioid receptors throughout your brain, down your throat, in your stomach and in your intestines. Each type of receptor is responsible for different effects on the body.
- One of the primary things that receptors do is block the sensation of pain from reaching the spinal cord. Opioids **do not heal pain**, they fool the body into thinking that it is not experiencing pain.
- Common opioid side effects:
 - Breathing slows - and in the case of an overdose - stops, because the muscles in the chest and abdomen become rigid and don't allow the lungs to expand.
 - The heart beats slower.
 - Nausea and vomiting.
 - Constipation is common and worsens with prolonged use. The intestines can back up into the stomach causing people to vomit feces. In extreme cases, the intestine and the waste flows into the abdomen causing sepsis which can be fatal.
 - People often "go on the nod" where they fall asleep. This is particularly dangerous as it can happen while driving, leading to accidents.
 - Weight loss is also common as are very tiny pupils in one's eyes.

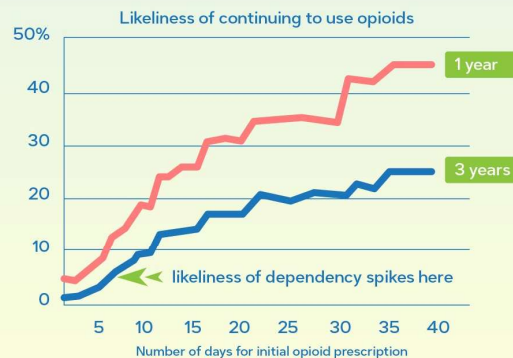
Addictive Nature of Opioids

Teenagers who are prescribed opioids are 33% more likely to report misusing opioids after high school.

You don't know if you'll become addicted and neither does anyone else - including your doctor.

It only takes days to become addicted to opioids.

Risk of continued opioid use increases at 4-5 days



Graph source: cdc.gov

- Teenage brains are rapidly developing and are more susceptible to addiction than a brain that is fully formed.
- There is **no way** to tell by looking at someone that they might be more susceptible to becoming addicted to opioids. Your environment and genetics both play a role in whether you become addicted to drugs.
- Four to five days of use is all it takes to increase the likelihood that someone will still be on opioids a year later.
- Many people who have Opioid Use Disorders report “falling in love” with the drug with the first dose. The drug does not discriminate, and people of all races and socioeconomic statuses are equally at risk of becoming addicted.
- Opioids and nicotine are some of the most addictive drugs.



A Deadly Number

7 out every 10 DEA tested pills
with Fentanyl are
Potentially DEADLY



- In 2022, the Drug Enforcement Administration (DEA) announced that 4 of 10 of the fake pressed pills they were taking off the streets contained potentially deadly doses of fentanyl. By 2023, the number had jumped to **7 in 10**.

- There are many factors that determine whether a dose is deadly or not, including someone's age, health, or if they have a tolerance to opioids.

- People with little or no history of opioid misuse or who used to misuse opioids but have not used them in a while, are the most likely to overdose as they have no tolerance to the drug.

- If pills are obtained off the street or on the internet, the chances are **very high** that the pills are fake.

- Pressed pills are made in a way that **does not** create uniform distribution, so some pills in a batch may have no fentanyl while others have a potentially deadly amount. No one is regulating the production of these pills.

DEA Fentanyl Seizures

In **2022**, DEA seized more than 59.6 million fentanyl-laced fake pills and more than 13,300 pounds of fentanyl powder.

The **2023** fentanyl seizures represent over 384 million deadly doses. Two milligrams of fentanyl is a potentially deadly dose.

2023

76,500,000

Millions of Fentanyl Pills Seized

11,412+ lbs.

Pounds of Fentanyl Powder Seized

- The DEA seized enough Fentanyl in one year in the US to kill every single man, woman, and child in the entire country.
- The chances are **very high** that pills being obtained from anywhere but a pharmacy or hospital are fake. It is not worth the risk that goes with them.
- In addition to pills, fentanyl powder is being mixed with drugs like heroin, cocaine, methamphetamine, and even marijuana and causing fatal overdoses to unsuspecting users.
- In its liquid form, fentanyl can be found in nasal sprays, eye drops, and dropped onto paper or small candies.

Activity: Real or Fake?

Oxycodone

A



B



Xanax

A



B



Activity

- Ask the students to raise their hand and vote for which pills (Group A or B) are really Oxycodone or raise their hand if they don't know. Repeat for Xanax.
- Count how many votes you have for each and post it where the students can see the tallies.

Activity Answer:

- Remind the students that 7 in 10 fake pills contain potentially lethal (i.e., deadly) doses of fentanyl and then reveal that:
 - Choice **B** is the real Oxycodone
 - Choice **B** is the real Xanax
- The only way to know for sure is to have the pills tested in a lab. Pharmacists have a hard time telling the difference and they dispense medication many times per day.
- It is **never** safe to take a pill from anyone other than a licensed medical professional. You will not be able to tell if it is fake or not just by looking at it.

A Scary Copycat

Criminal drug networks are flooding the U.S. with deadly fake pills

Criminal drug networks are mass-producing fake pills and falsely marketing them as legitimate prescription pills to deceive the American public.

- ❖ Fake pills are easy to purchase, widely available, often contain fentanyl or methamphetamine, and can be deadly.
- ❖ Fake prescription pills are easily accessible and often sold on social media and e-commerce platforms, making them available to anyone with a smartphone, including minors.
- ❖ Many fake pills are made to look like prescription opioids such as oxycodone (Oxycontin®, Percocet®), hydrocodone (Vicodin®), and alprazolam (Xanax®); or stimulants like amphetamines (Adderall®).

- Many fake pills are made to look like Oxycodone, Percocet, Xanax, Adderall, etc. Other types of pills might also be fake.
- Fentanyl is very cheap to produce and requires only tiny amounts to get people high, so the profit margins on making these drugs is enormous. Fentanyl is also easily smuggled into the US.
- Xylazine, also known as “Tranq,” is a powerful animal sedative that is increasingly mixed with fentanyl, which makes it more deadly and increases the chance of overdose. People who inject drug mixtures containing xylazine also can develop severe wounds, including necrosis—the rotting of human tissue—that may lead to amputation.

What is Rainbow Fentanyl?

Rainbow fentanyl comes in bright colors and can be used in the form of pills or powder that contain illicit fentanyl.



- Most legally manufactured medications are not brightly colored. This could be a sign that the pills are fake.

Activity: Let's talk about colors



What other products are brightly colored?

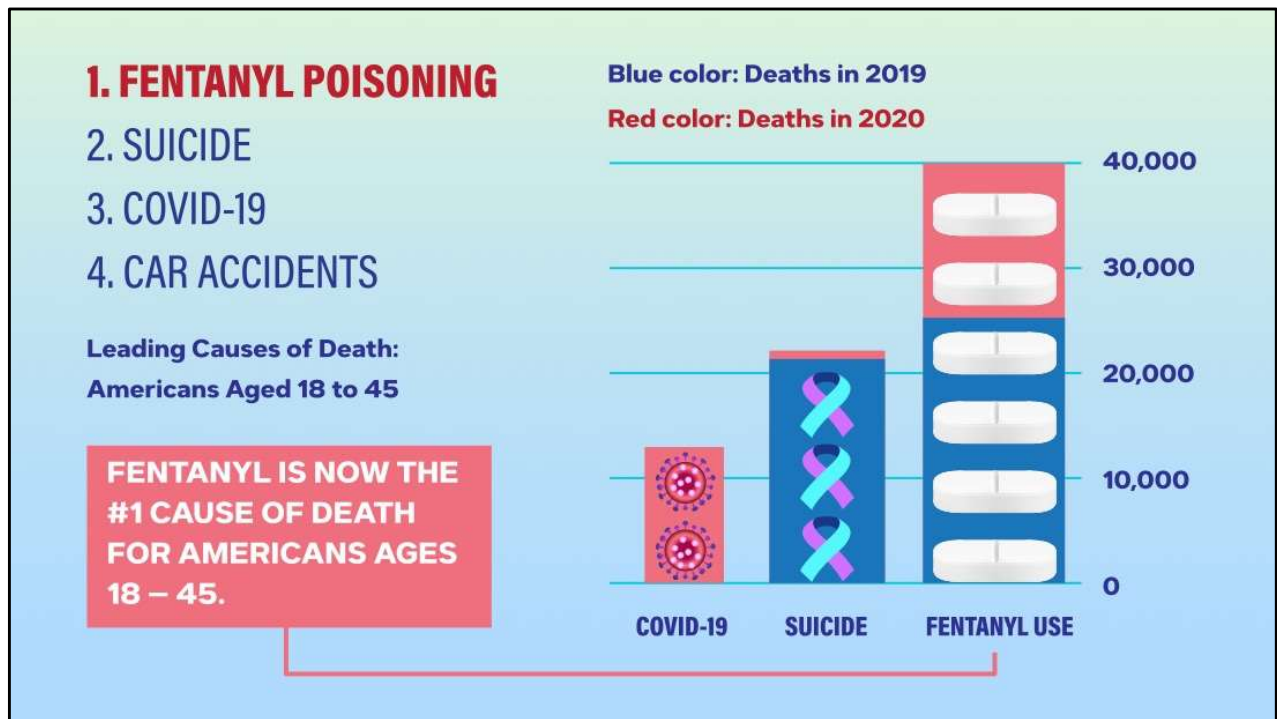
Why might illegal pill manufacturers make such brightly colored pills?

Activity:

- Option 1: Ask students to pair up and answer the questions.
- Option 2: Ask students to raise their hand if they want to share their answers.

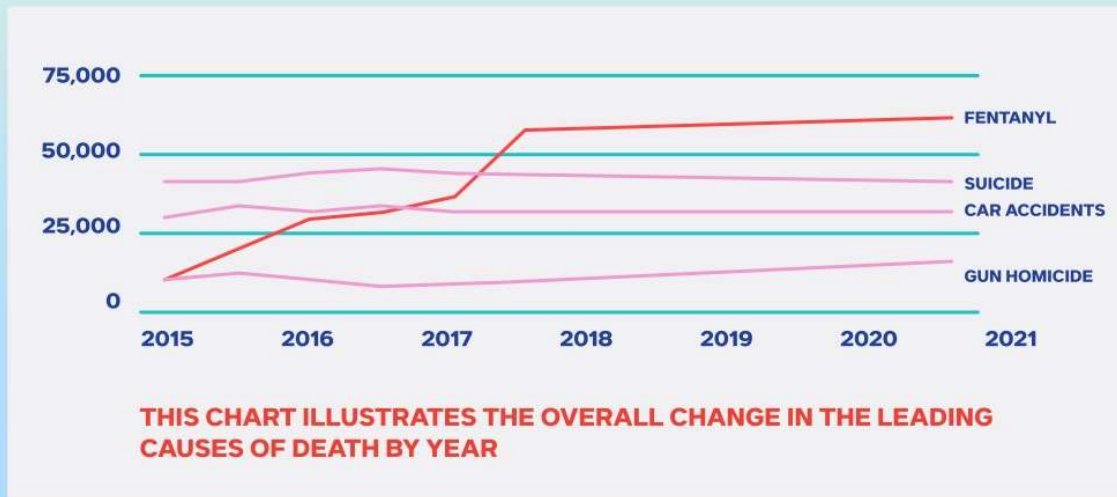
Activity Answer:

- The bright colors are designed to attract children and teens as the pills look like different types of candy which creates the impression that they are fun and harmless. Remember, it is **never** safe to take a pill from anyone other than a licensed medical professional. You will not be able to tell if it is fake or not just by looking at it.

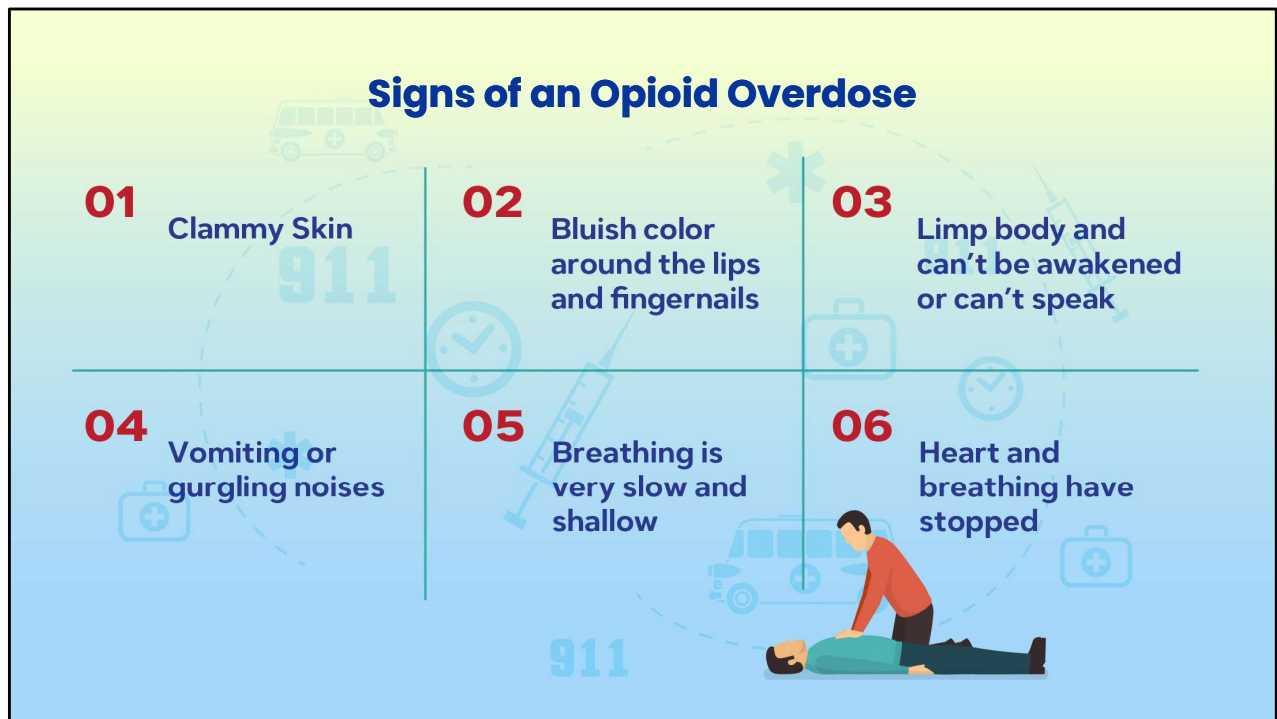


- There are approximately 300 million cars in the US and there were 384 million potentially fatal doses of fentanyl seized by the DEA in 2023. (This does not count the doses seized by other police agencies).
- It is no wonder people in the prime of their lives are more likely to be killed by fentanyl than in car accidents. There is a lot more of it around than cars. Cars are being built to be safer and safer whereas opioids are being built to be more and more deadly.

A Comparison of Fentanyl Fatalities in U.S. (All Ages)



- The increase in the number of fentanyl deaths from 2019 to 2021 is almost double. This is right in line with the DEA's reporting of seizures of fentanyl doubling during that time period.



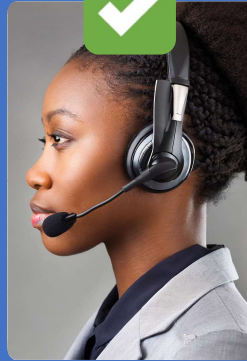
- If a person is discovered with the following symptoms, it is VITAL that 911 is called immediately.
- Not everyone will have all the symptoms. An overdose very commonly looks like someone is sleeping.
- There is about a 5-minute window to revive someone from an overdose if they have stopped breathing before the risk of damage to the brain begins due to lack of oxygen.
- Opioid overdose chances increase if opioids are combined with alcohol or benzodiazepine (e.g., Valium, Xanax, etc.)

If There is an Overdose...



WHAT NOT TO DO

- ❖ Do not leave the person
- ❖ Do not wait to see if they “snap out of it”
- ❖ Do not leave the person by the side of the road or out in front of the hospital

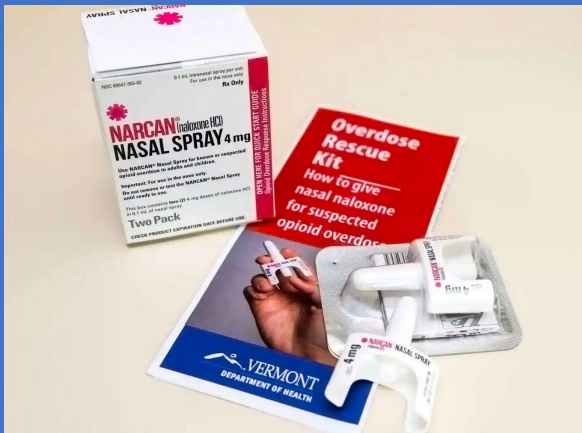


WHAT TO DO

- ❖ Call 911 immediately
- ❖ Administer Naloxone (e.g., Narcan), if available
- ❖ Try keeping the person awake and breathing
- ❖ Lay the person on their side to prevent choking
- ❖ Stay with the person until emergency assistance arrives

- Do not leave the person alone. They need help.
- Leaving people in places where they “might” be discovered is a big risk.
- There is a law in Virginia that protects people who call to report an overdose, even if they are using drugs themselves, called the Good Samaritan law. In other words, it keeps them from getting in trouble. It is designed to get people help by trained professionals to try and prevent death.

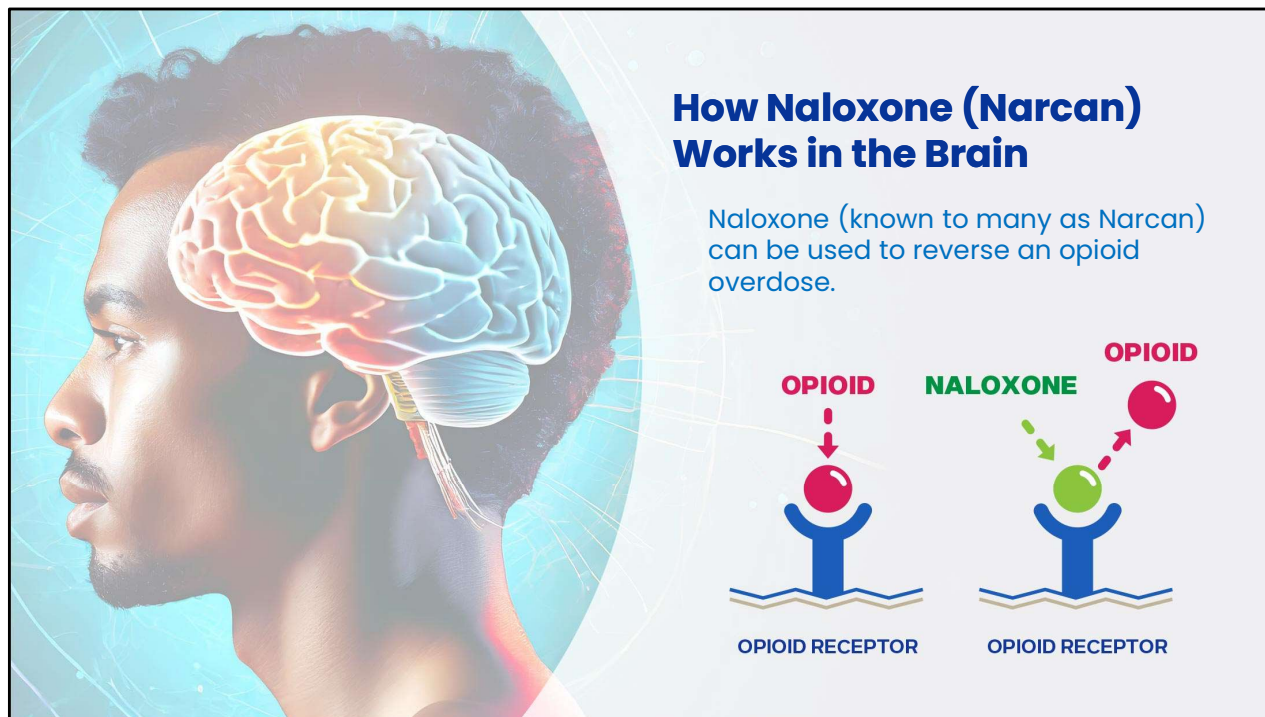
How to Save a Life



Medications such as NARCAN® Nasal Spray can reverse the effects of an opioid emergency by restoring breathing while waiting for emergency personnel to arrive.



- Naloxone (e.g. Narcan) is available without a prescription at the pharmacy counter. Each box comes with two doses. It will not hurt someone if you give them Naloxone and they are not experiencing an overdose.
- Always err on the side of caution and give Naloxone if it is available. More than one spray of Naloxone may be needed particularly if what the person is overdosing on is fentanyl or something even stronger. Doses can be given 2-3 minutes apart-alternating nostrils.
- Remember to call 911 at the first sign of overdose.
- Do not leave after administering Naloxone. When Naloxone wears off, the person can overdose again, so it is vital that they see an EMT or doctor.
- Fentanyl Test Strips are also becoming more common and are used to identify the presences of fentanyl and similar drugs. However, these tests are not perfect. Even if the test is negative, take caution as test strips might not detect more potent fentanyl-like drugs, like carfentanil.



- An opioid fills an opioid receptor, and when too many of the receptors are filled, an overdose occurs.
- Naloxone goes to the opioid receptors and removes the opioid, and then the Naloxone fills the receptor instead.
 - When enough of the opioid is removed from the receptors, the overdose is reversed, and the person will wake up.
 - Someone who has been revived with Naloxone should **not be left alone**, in case the Naloxone wears off, which could cause another overdose. Even if Naloxone is administered, the person must see a licensed medical professional.
 - People who are revived from an overdose are often not grateful. Naloxone will put them into opioid withdrawal if the person is a regular opioid user.
 - Opioid withdrawal is very painful. There will be abdominal pain and the person will experience nausea, vomiting and diarrhea.
 - If the person is a regular opioid user, withdrawal is also experienced if they are unable to get the drug after 8-24 hours.

Help for People Who Become Addicted



- ❖ Medications for Opioid Use Disorder (MOUDs) or Medication Assisted Treatment (MAT) can be combined with behavioral counselling.
- ❖ Methadone
- ❖ Buprenorphine (Suboxone®/ Subutex®)
- ❖ Naltrexone (Vivitrol®)

- Opioid use alters the brain and its pathways in ways that are not the same as other drugs.
- This makes it very difficult for people to stop using the drug without some sort of medication support, often called Medications for Opioid Use Disorder (MOUDs) or Medication Assisted Treatment (MAT).
- There are three drugs to help people.
 - **Methadone**
 - **Buprenorphine** (commonly known as Suboxone)
 - **Naltrexone** (commonly known as Vivitrol)

What is the Best Way to Stay Safe?

1

Avoid random pills. Friends or family might offer you a random pill or prescription medication that has not been prescribed to you. You can say no.

2

Pain is important information. If you are prescribed pain medication, take it EXACTLY as indicated by a licensed medical professional.



Avoid Random Pills

- Taking a random pill is gambling with your life.
- Fentanyl has been found in almost every illegal drug, and it is very hard to tell when it is present.
- Only take medication prescribed to you by a licensed medical professional.

Pain is Important Information

- Our bodies produce pain as a sign that something is wrong. Opioids trick the body into believing we are not in pain.
- Opioids are designed to get people through the worst part of the pain and are *not* meant to make it so no pain is felt.
- Switching to a non-opioid pain management strategy as soon as possible helps to prevent opioid dependence and potential addiction.

Optional Activity

Middle school students are also at risk of being harmed by fentanyl. In groups (or individually), design a poster aimed at middle school students informing them how to stay safe from fentanyl. People can share their poster if time permits.

Here are some pointers:

- ❖ Using scare tactics (threatening or scary language) is not a very effective way of reaching young people.
- ❖ Young people prefer honest and straightforward facts.
- ❖ Don't include pictures of the drugs or people using the drugs.
- ❖ Emphasize what people should do (not what they shouldn't do).



References and Resources

- <https://www.dea.gov>
- <https://www.dea.gov/onepill>
- <https://www.clearvuehealth.com/im/opioidlethaldoses/>
- <https://nida.nih.gov/>
- <https://drugabusestatistics.org/opioid-epidemic/>
- <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2542417>
- <https://www.cdc.gov/nchs/fastats/deaths.htm>
- <https://www.cdc.gov/nchs/data/vsrr/VSRR016.pdf>
- <https://www.familiesagainstfentanyl.org/>
- <https://wisqars.cdc.gov/fatal-leading>
- <https://www.samhsa.gov/medications-substance-use-disorders/medications-counseling-related-conditions/opioid-overdose>
- <https://www.justthinktwice.gov>
- <https://www.vfhy.org>





Optional Activity

If you administered a pre-survey, you may:

Administer the post-survey and have students fill it out.

Go over the right answers one by one with the class. Students are welcome to share their answers, but they don't need to.

Ask students what they learned that was most surprising.

